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Is There a Core Variable Underlying Cognitive Deficits?

INTACT AND IMPAIRED INTERSENSORY INTEGRATION IN SCHIZOPHRENIA

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Integration of information from provided simultaneously by different sensory channels (audition and vision) was studied in a group of schizophrenic patients. Three tasks were administered that each focus on one aspect of audiovisual integration. The first task was intended to assess audiovisual interactions in spatial localization of sounds (ventriloquism). The second and third tasks focused on the integration of the information provided by two separate input channels and measured cross-modal bias. One task was a variant of the McGurk phenomenon (impact of incongruent lip movements on perception of speech sounds) and the other investigated how rating of a facial expression is biased by a congruent or incongruent (de Gelder and Vroomen, in press; de Gelder et al., 1999) tone of voice. The subjects consisted of a group of 16 schizophrenic patients. Diagnosis was conform DSM IV. Criteria for inclusion in the study were based on results obtained the SCAN (Schedules for Clinical Assessment in Neuropsychiatry). Results were compared with a control group consisting of normal adults of comparable educational level.

The results show an entirely normal pattern of performance in the first but not in the second and third task. In sharp contrast to the controls, the schizophrenic patients did not provide evidence of integration of the two inputs. While the results were not different from the normal pattern for presentation of each input in isolation it appeared that in the bi-modal condition whether of speech or of affective information none of the schizophrenic patients showed evidence of combining the two input channels.

FALSE MEMORIES IN SCHIZOPHRENIA: AN EXPERIMENTAL APPROACH

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Knowing whether autobiographical memories reported by patients with schizophrenia correspond to events that did actually occur or are memory illusions is critical for clinicians. Recent studies have described an experimental procedure which allows to investigate the production of false memories.

The aim of this study was to investigate false recognition and related states of awareness using a procedure which elicited numerous false memories.

Method: 30 patients with schizophrenia and 30 normal subjects studied lists of words semantically related to a non-presented theme word (critical lure). On a recognition memory task with both previously presented words and non-presented critical lures, subjects gave Remember responses to recognized items that were accompanied by conscious recollection, Know responses to items that were recognized on the basis of familiarity and Guess responses to items that were produced by guessing.

Results: Schizophrenia impaired false recognition to the same extent as true recognition. This deficit was restricted to memories associated with conscious recollection.

Conclusions: These results suggest that a common mechanism, such as defective organizational processes at encoding, could account of the impairment of conscious recollection associated with both true and false recognition in schizophrenia. They indicate that schizophrenia impairs true and false episodic memories in that they are mental constructions of past events rather than literal records of these events.

IMPAIRED ATTENTION DOES NOT CAUSE PSYCHOTIC SYMPTOMS

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Background: Many patients with schizophrenia appear distractible, clinically. However, no previous studies have tested if clinical distractibility relates to experimental measures of attention. Stroop interference (SI) provides an experimental measure of sensitivity to distractors. More SI indexes more distractibility in healthy people: we tested if clinical distractibility relates to larger SI in psychosis.

Methods: 41 dextral patients took part: 29 had schizophrenia (ICD-10) and 12 had affective psychoses. 20/41 were treatment-naive (14 schizophrenic), the rest were taking *only* antipsychotics. The patients completed a computerised Stroop test and a structural interview that included a rating of clinical distractibility.

Results: Surprisingly, SI correlated *inversely* with clinical distractibility: patients who were clinically distractible had *less* SI than those who were not. SI was *absent* in drug-naive patients who were clinically distractible. Overall, schizophrenic patients taking antipsychotics showed more SI than those who were drug-naive; however, patients with affective psychoses showed the *opposite* pattern.